

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>109846/CCS</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/NO2004/000235</b>	International filing date ( <i>day/month/year</i> ) <b>04 . 08 . 2004</b>	Priority date ( <i>day/month/year</i> ) <b>04 . 08 . 2003</b>
International Patent Classification (IPC) or national classification and IPC <b>F24B5/02, F23L9/02</b>		
Applicant <b>Hustad Johan Einar</b>		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>  5  </u> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: <div style="margin-left: 20px;"> a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>  3  </u> sheets, as follows: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <div style="margin-left: 20px;"> <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. </div> </div> </div> <div style="margin-left: 20px;"> b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). </div>
4.	This report contains indications relating to the following items: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. I      Basis of the report <div style="margin-left: 20px;"> <input type="checkbox"/> Box No. II      Priority <div style="margin-left: 20px;"> <input type="checkbox"/> Box No. III      Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <div style="margin-left: 20px;"> <input type="checkbox"/> Box No. IV      Lack of unity of invention <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. V      Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <div style="margin-left: 20px;"> <input type="checkbox"/> Box No. VI      Certain documents cited <div style="margin-left: 20px;"> <input type="checkbox"/> Box No. VII      Certain defects in the international application <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. VIII      Certain observations on the international application </div> </div> </div> </div> </div> </div> </div> </div>

Date of submission of the demand  <b>02 . 06 . 2005</b>	Date of completion of this report  <b>01 . 11 . 2005</b>
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## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

plate (1), that is folded...". However, this expression does not define an afterburner that is clearly different from the device in D1. It seems to be irrelevant if the pre-heater is manufactured by folding a plate, or by for example welding plates together to make up a functioning pre-heating chamber for the secondary air. Further, claim 1 does not reveal that the secondary air rises upwards in the pre-heater; this is defined in claim 2. Therefore, the subject matter of claim 1 is considered to lack novelty and inventive step.

Claim 2 defines an afterburner with a pre-heater mounted and designed so that secondary air rises upwards when it is pre-heated. In contrast to this, the afterburner previously known from D1 is mounted horizontally whereby the secondary air flows horizontally in the pre-heater and thereafter downwards, to the upper part of the combustion chamber. Thus, the subject matter of claim 2 is novel. Further, it is not considered obvious to a person skilled in the art to design and mount such a pre-heater for secondary air as is revealed in claim 2, in view of D1. Therefore, the subject matter of claim 2 is considered to involve an inventive step.

The subject matter of claims 3-4 also fulfils the requirements of novelty and inventive step, especially if the claims relate to claim 2.

There is no reason to doubt the industrial applicability of the invention.

**Box No. VIII** Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 is unclear. The expression "...heated air to a zone (14) in the stove above the stove's combustion chamber (13)..." is unclear. The originally filed claim 1 says "...til et område (14) i ildstedet over ildstedets forbrenningssone (13...)". Thus, as the originally filed claim 1 indicates, the secondary air is supplied in the combustion chamber but in a zone above the primary combustion zone. The present claim 1 can be read to include a supply of secondary air above the vault (7).

Further, claim 1 does not reveal the cooperation of the "folded plate" and the "side or rear wall in an existing traditional stove" for building the chamber of the pre-heater.